

INNOVATIVE / ALTERNATIVE INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS) TECHNOLOGY PROGRAM

The June 1996 Amendments to DEM's Individual Sewage Disposal Systems (ISDS) Rules and Regulations provide the basis for approval of Innovative/Alternative (I/A) Technologies in Rhode Island. I/A systems are designed as alternatives to conventional ISDS systems or parts of a conventional system. A conventional system is a traditional ISDS with a septic tank, pump chamber with pump or siphon (if needed), distribution box and a standard leach field with gravity distribution. An Innovative/Alternative System or Technology is an ISDS system that does not meet the location, design or construction requirements of a conventional system, but has been demonstrated through field testing, calculations and other engineering evaluations to provide the same degree (or better) of environmental and public health protection.

The June 1996 Amendments established three different categories of I/A technologies: alternative systems, system components, and experimental systems.

Alternative Systems - This category has two classes of certification: Class I and Class II. An I/A system that is certified as Class I has been shown to have at least five consecutive years of quality performance data which clearly demonstrate that all applicable standards have been met. A Class I system must also have been approved for at least five consecutive years in Rhode Island or at least three other jurisdictions. A Class II certification is issued to technologies that have at least 2 years of performance data, have demonstrated a theory or applied research, and have been approved in Rhode Island or another jurisdiction for at least 2 consecutive years.

System Components - This category also has two classes of certification: Class I and Class II. A system component that is certified as Class I has been shown to have at least two consecutive years of performance data and has been approved for at least two consecutive years in Rhode Island or at least three other jurisdictions. Class II certification is issued to components that provide one to two years of performance data, demonstrate a theory or applied research, have been approved for use in at least one other jurisdiction, and have performed successfully for a minimum of one year.

Experimental Systems - This category is designed to allow innovative systems, that have been demonstrated to work in practice or theory, to be installed on a limited basis as they are further tested and studied. Between three and ten systems must be installed on approved sites where both the property owner and subsequent purchasers agree to abandon the experimental system and install a conventional or I/A approved Class I system if the experimental system fails to perform as designed.

For a technology to be approved for use in the state of Rhode Island, the Vendor of that technology must submit an application package to the Department's Innovative/Alternative Technology Program for review. The application package is then reviewed by Department staff for completeness. Completed applications are forwarded to the Department's ISDS Technical Review Committee (TRC). The TRC is made up of members from the Department, Coastal Resource Management Council, local Universities, ISDS design and installation firms, local municipalities, and environmental organizations. The TRC reviews all I/A applications and makes recommendations to the Department based on their findings. The Department then issues the final approval or denial.

An approval is documented in the form of a Certification which is signed by the Chief of the Permitting Section

in the Office of Water Resources. The Certification lists any design requirements or restrictions placed on the technology and it also indicates the general requirements and any sampling and reporting requirements associated with the technology.

After a technology is certified by the Department, the Vendor must submit a Design and Installation Manual for review. When the technology's Design and Installation Manual is approved the technology is then placed on the Department's List of Approved Innovative/ Alternative Technologies. Once an innovative or alternative technology is on the list then individual applications to design, construct, alter, or install these technologies may be submitted to the Department. Please note that an I/A technology is not approved for use under the program until placed on the list. Individual ISDS applications submitted to the Department proposing a technology not yet listed as of the date of receipt of the application will be returned.